PLATALEA SUBTENUIS DE VIS (AVES) IS A WHITE IBIS

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Platalea subtenuis De Vis 1892, was based on 3 syntypic bones from late Pleistocene deposits along Cooper Creek, South Australia. Two of these were re-identified as belonging to the flightless rail *Gallinula (Tribonyx) mortierii*, leaving QMF1140, a proximal right femur, previously designated as the lectotype. Re-examination of this specimen indicates that it is from an Australian White Ibis *Threskiornis molucca*. ❐ *White Ibis, Pliocene.*

Walter E. Boles, Terrestrial Zoology(Birds), Australian Museum, 6 College Street, Sydney, New South Wales, 2010; 1 August 2004.

C.W. De Vis of the Queensland Museum was very active in the late 19th and early 20th Centuries in describing new Australian fossil birds (van Tets & & Vickers-Rich, 1990). Most of these came from the Darling Downs or along Cooper Creek. Re-examination of De Vis' specimens has shown that many of his identifications were incorrect, with a large number of the putative fossil taxa being inseparable from living species, often from different orders than those in which they had been described (van Tets & Vickers-Rich, 1990). One of these fossil species was the spoonbill *Platalea subtenuis* De Vis 1892, named on the basis of 3 syntypic bones (QMF1140, QMF5554, QMF5555) from late Pleistocene deposits along Cooper Creek at what is equivalent to University of California Museum of Paleontology, Berkeley, Site 18 (UCMP V-6147).

These were re-examined by Olson (1975), who found that QMF5554 and QMF5555 belonged to the large flightless rail, *Gallinula (Tribonyx) mortierii*, as did those of several other of De Vis' fossil taxa. This species, now known as the Tasmanian Native-hen, was once widespread in eastern Australia (Olson, 1975; Baird, 1984; Boles, in press).

QMF1140, a proximal right femur with about half of the shaft, was designated lectotype by Olson (1975) but he did not comment on whether the assignment to *Platalea* was valid. Van Tets (1984) included it as incertae sedis in his list of Australasian fossil birds.

Australian fossil *Platalea* is otherwise known only from Weekes Cave, SA (van Tets, 1974) represented by a near complete skeleton of Yellow-billed Spoonbill *P. flavipes*. The only other Tertiary record of Threskiornithidae from Australia is in the Pliocene Allingham Formation, Bluff Downs Local Fauna, Queensland (Boles & Mackness, 1994). This, based on the shoulder end of a coracoid, was cited as *Threskiornis* sp. cf. *T. molucca*.

The lectotype of *P. subtenuis* indicates that it is properly assigned to the ibises, *Threskiornis*, and is probably conspecific with the Australian White Ibis *T. molucca*. Ibises and spoonbills are closely related, and the post-cranial skeletons of these two similar-sized animals are very similar.

SYSTEMATIC PALAEONTOLOGY

Family THRESKIORNITHIDAE Richmond, 1917

Threskiornis Gray, 1842
Threskiornis molucca (Cuvier, 1829)
(Fig. 1)

1892 *Platalea subtenuis* DeVis, p.443, pl. 23, fig. 5a,b.

MATERIAL. The lectotype of *Platalea subtenuis* QMF1140, a proximal right femur; proximal width 15.9 mm and proximal depth 10.3 mm. Specimen is abraded on some edges, particularly on the anterior face of the crista trochanterica, thus depth measurement is somewhat reduced.

REMARKS. Assignment to *Threskiornis* rather than *Platalea* is based on having a more curved medial margin (anterior view), shallower proximal end (not as lateromedially elongate) and the caput femoris not undercut as far on anterior and posterior faces. Although not evident on the incomplete specimen, other femoral characters that distinguish *Threskiornis* from *Platalea* are the shorter element (66-76 mm vs 76-83 mm), greater angle between the sulcus intercondylaris and the long axis of shaft (10° vs 5°), and a deeper (posterior border more extensive) and rounder condylus medialis (medial view).

FIG. 1. *Platalea subtenuis* De Vis lectotype (QMF1140) compared with right femora of living species of Threskiornithidae. Left to right, *P. regia, Threskiornis spinicollis, T. molucca, P. subtenuis.* A, anterior view; B, posterior view. Scale =10 mm.

QMF1140 is referred to *T. molucca* rather than the Straw-necked Ibis *T. spinicollis* because the proximal end is proportionally wider and deeper, the crista trochantericus angled more proximomedially-distolaterally (anterior view), the caput femoris larger and the collum femoris more distinct, with the caput femoris not joining the shaft as abruptly (anterior view). A deeper condylus lateralis helps distinguish distal ends.

A substantial proportion of modern specimens of the Australian Threskiornithidae examined are not sexed. These species are known to be sexually size dimorphic, and this appears to be reflected in femoral measurements of specimens for which sex has been recorded (Table 1). Comparison of the fossil with the values for *T. molucca* in (Table 1) suggests that the specimen was a female. The putative fossil spoonbill *P. subtenuis* De Vis, 1892, is therefore placed in synonomy with the living ibis *Threskiornis molucca* (Cuvier, 1829).

TABLE 1. Measurements of proximal femora of *Platalea subtenuis* and extant Australian species of Threskiornithidae (mm)

	Platalea subtenuis	*Platalea regia*	*Threskiornis molucca*	*Threskiornis spinicollis*
♂ proximal width		17.2	16.3-16.8	16.9-17.2
♂ proximal depth		12.1	12.1-12.7	12.1-12.9
♀ proximal width		16.0-16.2	13.9-15.3	16.1-16.6
♀ proximal depth		11.5-12.3	10.8-11.4	11.2-13.2
all birds: proximal width	15.9	15.7-17.9	13.9-16.9	15.2-17.5
all birds: proximal depth	10.3	11.5-13.2	10.8-12.9	11.2-13.2

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